

AMENDMENT TO THE CLAIMS

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- 1.(Original) A method for retrieving information from a document collection, the method comprising:  
converting a user query into at least two logical form triples;  
generating a compound logical form query by connecting at least two of the logical form triples with a restrictive operator; and  
searching an index of the document collection for documents that match the compound logical form query.
- 2.(Original) The method of claim 1 wherein searching an index comprises searching a field in the index that contains entire logical form triples.
- 3.(Original) The method of claim 1 wherein converting a user query comprises identifying a query type from the user query and generating a logical form triple based on the query type.
- 4.(Original) The method of claim 1 wherein generating a compound logical form query comprises:  
determining a score for each logical form triple;  
combining the scores for each logical form triple to form a total score; and  
generating the compound logical form query based in part on the total score.
- 5.(Original) The method of claim 4 wherein determining a score for each logical form triple comprises determining a score based on properties of words associated with a logical form triple.

6.(Original) The method of claim 4 wherein determining a score for a logical form triple comprises determining a score based on a linguistic type associated with the logical form triple.

7.(Original) The method of claim 4 wherein generating the compound logical form query based in part on the total score comprises:

determining that the total score is relatively low; and  
based on the relatively low total score, using  
restrictive operators between each logical form  
triple in the compound logical form query.

8. (Original) The method of claim 4 wherein generating the compound logical form query based in part on the total score comprises:

determining that the total score is relatively high;  
and  
based on the relatively high total score, constructing  
the compound logical form query so that it is not  
overly restrictive.

9.(Original) The method of claim 8 wherein constructing the compound logical form query so that it is not overly restrictive comprises constructing the compound logical form query to allow fuzzy matching of at least one logical form triple.

10.(Original) The method of claim 8 wherein constructing the compound logical form query so that it is not overly restrictive comprises placing a non-restrictive operator between at least two logical form triples in the compound logical form query.

11.(Original) The method of claim 8 wherein constructing the compound logical form query so that it is not overly restrictive

comprises constructing the compound logical form query using only some of the logical form triples formed from the user query.

12.(Original) The method of claim 1 wherein searching the index produces a set of logical-based search results and wherein the method of retrieving information further comprises:

searching a word index of the document collection for documents that match words in the user query to produce a set of word-based search results; and intersecting the logical-based search results with the word-based search results to form a filtered set of search results.

13.(Original) A method of retrieving information from a document collection, the method comprising:

AI  
generating a compound logical form query from a user query, the compound logical form query having at least two logical form triples connected by a restrictive operator;  
applying the compound logical form query to a logical form triple index of a document collection to form a set of logic-based search results;  
generating a word query based on words in the user query;  
applying the word query to a word index of the document collection to form a set of word-based search results; and  
intersecting the logic-based search results with the word-based search results to form a set of filtered compound results.

14.(Original) The method of claim 13 wherein generating a compound logical form query comprises:

determining the restrictiveness of a set of logical form triples identified from the user query; and combining logical form triples so as to limit the restrictiveness of the compound logical form query formed from the set of logical form triples.

15.(Original) The method of claim 13 wherein generating a word query comprises identifying important words in the user query and placing the important words in the word query.

AI 16.(Original) The method of claim 13 further comprising:  
generating a standard logical form triple query by connecting a set of logical form triples with non-restrictive operators;  
applying the standard logical form triple query to the logical form triple index of the document collection to form a second set of logic-based search results; and  
intersecting the word-based search results with the second set of logic-based search results to form a set of filtered standard results.

17.(Original) The method of claim 16 further comprising returning the filtered compound results and the filtered standard results to the user with the filtered compound results ranked higher than the filtered standard results.

18.(Original) The method of claim 16 further comprising:  
generating a second word query based on words in the user query;  
applying the second word query to the word index to form a second set of word-based search results;  
and

intersecting the second set of word-based search results with the filtered standard results to form further filtered standard results.

19.(Original) The method of claim 18 further comprising returning the filtered compound results, the further filtered standard results and the filtered standard results to the user with the filtered compound results ranked above the further filtered standard results and the further filtered standard results ranked above the filtered standard results.

20.(Currently Amended) A computer-readable medium having computer-executable instructions for performing information retrieval steps comprising:

performing a logic-based search of a document collection using logical form triples created from a user query to create logic-based search results, performing the logic-based search comprising forming a compound logical form query by identifying at least two logical form triples from the user query and connecting at least two of the logical form triples with a restrictive operator, and using the compound logical form query to search the document collection;

performing a word-based search of the document collection using words taken from the user query to create word-based search results; and intersecting the logic-based search results and the word-based search results to form filtered search results.

21.(Original) The computer-readable medium of claim 20 wherein performing a word-based search comprises identifying important

words in the user query and using only the important words in the word-based search.

22. (Canceled)

23. (Currently Amended) The computer-readable medium of claim 21~~22~~ wherein the information retrieval steps further comprise:

performing a standard logic-based search of the document collection by identifying at least two logical form triples from the user query, connecting each of the identified logical form triples together using non-restrictive operators to form a standard logical form triple query, and searching the document collection using the standard logical form triple query to form standard logic-based search results; and intersecting the standard logic-based search results with the word-based search results to form filtered standard search results.

24. (Original) The computer-readable medium of claim 23 wherein the information retrieval steps further comprise returning the filtered search results and the filtered standard search results to the user with the filtered search results ranked higher than the filtered standard search results.

25. (Original) The computer-readable medium of claim 23 wherein the information retrieval steps further comprise:

performing a second word-based search of the document collection to form second word-based search results; and

intersecting the second word-based search results with  
the filtered standard search results to form  
further filtered standard search results.

26. (Original) The computer-readable medium of claim 25 wherein  
the information retrieval steps further comprise returning the  
filtered search results, the filtered standard search results,  
and the further filtered standard search results to the user with  
the filtered search results ranked higher than the further  
filtered standard search results and the further filtered  
standard search results ranked higher than the filtered standard  
search results.

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